

Juniperus communis var. *depressa*

Common Juniper

by Kathy Lloyd, Montana Native Plant Society

There are four specimen sheets containing examples of *Juniperus communis* var. *depressa*, or common juniper, in the Lewis & Clark Herbarium in Philadelphia today. Only two other plants, silver sagebrush (*Artemisia cana*) and rubber rabbitbrush (*Chrysothamnus nauseosus* ssp. *graveolens*) can boast as many, according to a count in Gary Moulton's Volume 12 of *The Journals of the Lewis & Clark Expedition*. Common juniper was indeed common, and Lewis first collected it on October 17, 1804 in Sioux County, North Dakota. This collection was part of the shipment of plants and other specimens that Lewis and Clark sent back to St. Louis from Fort Mandan in April 1805. Lewis's original note with this common juniper specimen reads, "No 47 a species of Juniper, common to the bluffs-October 17th." The botanist Frederick Pursh also added a note to this specimen sheet that says, "Common to the bluffs. Octbr: 17, 1804." Common juniper was collected again on July 7, 1806 in Montana. At this time the expedition was in Montana and had divided into two main groups. Lewis and nine men were crossing the Continental Divide at Lewis & Clark Pass on their way to uncover the cache at White Bear Island camp. From there he and three men would explore the Marias River drainage. Clark and the remainder of the party crossed Gibbons Pass on the Ravalli-Beaverhead County line on July 6 and were on their way back to Camp Fortunate. From there Clark and part of the group would make their way to the Yellowstone River. Sergeant Ordway and nine men would take the canoes down the Missouri River to the Great Falls and meet Lewis at the confluence of the Marias and Missouri rivers. They all planned to rendezvous at the confluence of the Missouri and Yellowstone rivers in North Dakota. What a plan! What's truly amazing is it worked, and the three parties of travelers found each other and met when and where they had planned. All without benefit of cell phones, GPS units, topo maps or extensive knowledge of the country.

Either Lewis or Clark could have collected common juniper on July 7. If Lewis collected the plant it was in the vicinity of Lewis & Clark Pass; if Clark had the honor, it was near Gibbons Pass. Neither explorer mentions collecting the specimens and both had the opportunity and were in areas of suitable habitat. The two specimen sheets in the Lewis & Clark Herbarium from July 7, 1806 bear labels applied by the botanist Frederick Pursh. One sheet has a label that reads, "Dwarf Juniper. Rocky mountain. Jul. 7th 1806" and the other says, "*Juniperus communis* nana Dwarf Juniper Rocky Mountains. Jul. 7th 1806."

Common juniper, also called dwarf juniper, is a low, evergreen shrub in the juniper or cypress family (Cupressaceae). It rarely exceeds five feet in height, and tends to form mats or clumps. The leaves, or needles, are sharp and are arranged in whorls of three, emerging at a right angle to the stem. The young twigs are yellowish in color and three-angled. The older stems are reddish-brown or gray and the bark is papery and shreds from the twigs. Male and female flowering parts usually occur on separate plants. The male cones are single, small and oblong. Female cones are round and berry-like and are the blue, powdery berries most people notice on juniper shrubs. They mature the second year and persist on the plant for a year or more.

Common juniper is found around the world at northern latitudes and is common on rocky or sandy, wooded hillsides, grasslands and dry hills throughout the Great Plains and as far west as Washington and California and south to New Mexico. The species is also found in the southeast and along the eastern seaboard, where it is considered rare. Unfortunately, common juniper has been extirpated in Maryland.

Lewis and Clark may have been aware of some of the many uses native Americans had for common juniper. Juniper was held in high esteem by many tribes and was used both practically and ceremonially. The Blackfoot used a decoction of the berries to treat lung ailments as well as venereal diseases. Tribes west of the Continental Divide used an infusion of bark and needles to treat colds and as a tonic prior to entering a sweat lodge. An infusion of the twigs was used as an eyewash and the berries were eaten to treat kidney disorders. Ceremonially, juniper was used in sweat lodges and as a body wash to protect a person from evil influences. The smoke was used in purification rituals and the wood was used for lance shafts and bows.

Modern day herbal practitioners use juniper as a diuretic and to treat urinary tract problems. The plant is also being studied to treat insulin-dependent diabetes. Juniper berries are used to flavor gin and alcoholic bitters. The berries can be used to enhance the flavor of wild game and are used in stuffing and dressing for game.

Birds make frequent use of juniper berries and help disseminate the indigestible seeds, and the shrubs provide cover for small mammals and birds.

Common juniper has considerable value as a landscape plant and is used frequently in native plantings. It can be propagated vegetatively and used as a ground cover or border. It is drought-resistant and attractive. If wildfire is a concern, however, junipers are best avoided. They are resinous and burn readily with a hot heat.

Lewis and Clark must have been interested in common juniper since they collected it on several different occasions and in different parts of the country. It is one of those common shrubs that we may tend to take for granted. Should that happen, take a moment to reflect on the centuries of use by native cultures, the important place it has in the history of Lewis and Clark in Montana, and its defining signature on many parts of the Montana landscape.